

SYMBOLS DESCRIPTION

SITE WORK

S	SIGNAL DUCT BANK
P	PRIMARY ELECTRICAL DUCT BANK
STL	UNDERGROUND SITE LIGHTING CIRCUIT
UG	UNDERGROUND ELECTRICAL CONDUIT
○/□	SITE LIGHT WITH SINGLE LUMINAIRES (30' POLE/14' POLE)
○-○	SITE LIGHT WITH TWIN LUMINAIRE

ONE LINE DIAGRAMS

+	BATTERY
O.C.B.	HIGH VOLTAGE OIL CIRCUIT BREAKER
←	HIGH VOLTAGE DRAWOUT AIR CIRCUIT BREAKER
←	SWITCH AND FUSE UNIT
←	FIXED CIRCUIT BREAKER
←	LOW VOLTAGE DRAWOUT CIRCUIT BREAKER
←	FUSED DRAWOUT POTENTIAL TRANSFORMER
A	AMMETER
V	VOLTMETER
W	WATTMETER
WH	WATT-HOUR METER
50	INSTANTENOUS OVERCURRENT OF RATE-OF-RISE RELAY
51	AC-TIME OVERCURRENT RELAY
67	AC-DIRECTIONAL OVERCURRENT RELAY
86	LOCKING OUT RELAY
⚡	LIGHTNING ARRESTOR
⊕	GROUND CONNECTION
▶	POTHEAD
▶	STRESS CONE
⊞	PUSH-BUTTON STATION
⊞	CURRENT TRANSFORMER
⊞	TRANSFORMER

REWIRING AND DEMOLITION

CLG	WALL
---	EXISTING CONDUIT AND WIRE TO REMAIN.
---	EXISTING CONDUIT AND WIRE TO BE REMOVED.
3	EXISTING SWITCH TO BE REMOVED. "3" INDICATES THE POLES.
⊞	EXISTING DUPLEX RECEPTACLE TO BE REMOVED.
⊞	EXISTING EMERGENCY DUPLEX RECEPTACLE TO BE REMOVED.
▽	EXISTING COMMUNICATIONS OUTLET TO BE REMOVED.
⊞	EXISTING JUNCTION BOX TO BE REMOVED
N	EXISTING NURSE DOME LIGHT DEVICE TO BE REMOVED
N	EXISTING NURSE CALL DEVICE TO BE REMOVED
⊞	EXISTING FLUORESCENT 2'X4' LIGHT TO BE REMOVED
⊞	EXISTING FLUORESCENT 1'X4' LIGHT TO BE REMOVED
⊞	EXISTING PATIENT HEAD BOARD TO BE REMOVED

SYMBOLS DESCRIPTION

LIGHTING SYSTEM

CLG	WALL
FA	FLUORESCENT 2'X4' LIGHT FIXTURE. OUTSIDE LETTER INDICATES FIXTURE TYPE.
FB	FLUORESCENT 2'X2' LIGHT FIXTURE. OUTSIDE LETTER INDICATES FIXTURE TYPE.
⊞	EMERGENCY FLUORESCENT LIGHT FIXTURE (LIFE SAFETY)
⊞	EMERGENCY FLUORESCENT LIGHT FIXTURE (CRITICAL BRANCH)
A	LIGHT FIXTURE, WALL MTD 7'-6" AFF UNLESS OTHERWISE NOTED OUTSIDE LETTERS INDICATE FIXTURE TYPE.
⊞	EXIT LIGHT, WALL MTD 7'-6" UNLESS OTHERWISE NOTED
⊞	EXIT LIGHT W/DIRECTIONAL ARROWS, WALL MTD 7'-6" UNLESS OTHERWISE NOTED

NOTES: SUBSCRIPT IN CAPITOL LETTER INDICATES TYPE OF FIXTURE, SEE FIXTURE SCHEDULE

RECEPTACLES

⊞	DUPLEX RECEPTACLE HOSPITAL GRADE NEMA 5-20R AT 18" AFF U.N.O.
⊞	SINGLE RECEPTACLE HOSPITAL GRADE NEMA 5-20R AT 18" AFF U.N.O.
⊞	DUPLEX RECEPTACLE RED HOSPITAL GRADE NEMA 5-20R ON EMERGENCY POWER AT 18" AFF U.N.O.
⊞	DUPLEX RECEPTACLE HOSPITAL GRADE NEMA 5-20R AT 18" AFF U.N.O. WITH GROUND FAULT CIRCUIT INTERRUPTION
⊞	DUPLEX RECEPTACLE HOSPITAL GRADE NEMA 5-20R MOUNTED HORIZONTALLY 6" ABOVE COUNTER BACKSPLASH. COORDINATE WITH ARCHITECT.
⊞	QUADRUPLE RECEPTACLE RED HOSPITAL GRADE NEMA 5-20R ON EMERGENCY POWER AT 18" AFF U.N.O.
⊞	QUADRUPLE RECEPTACLE RED HOSPITAL GRADE NEMA 5-20R ON EMERGENCY POWER AT 18" AFF U.N.O.
⊞	ELECTRICAL STRIP MOLD (OUTLETS ON 2'-0" CENTERS OR AS DESIGNATED ON DRAWINGS), MTD 4'-0" AFF OR AS INDICATED
⊞	POKE-THRU WIREMOLD #RC3 SERIES TO SUPPLY POWER AND VOICE/DATA.
⊞	JUNCTION BOX

GENERAL

CLG	WALL
⊞	SINGLE POLE SWITCH WITH SUFFIX a,b,c ETC. INDICATES CONTROLS OF FIXTURE(S) WITH SAME DESIGNATION(S).
⊞	DUAL LEVEL LIGHT SWITCH
⊞	THREE POLE SWITCH
⊞	FOUR POLE SWITCH
⊞	KEY OPERATED SWITCH
⊞	MANUAL MOTOR STARTING SWITCH
⊞	DIMMER LIGHT SWITCH
⊞	FURNISH AND INSTALL (1) WATTSTOPPER WALL SWITCH OCCUPANCY SENSOR #DW-100 DUAL TECHNOLOGY WHITE ON WHITE WITH MANUAL ON/AUTO OFF AND 15 SECOND-30 MINUTE TIME DELAY. CONTRACTOR SHALL ADJUST OCCUPANCY SENSOR TO MAXIMUM SETTING.

POWER

⊞	JUNCTION BOX MOUNTED ON UNIT, WALL OR CEILING.
⊞	MOTOR - REFER TO HVAC AND PLUMBING EQUIPMENT SCHEDULES FOR HORSEPOWER, KW, ETC.
⊞	DISCONNECT SWITCH/BUS PLUG
⊞	COMBINATION MAGNETIC MOTOR STARTER/DISCONNECT SWITCH.
⊞	EMERGENCY POWER OFF PUSHBUTTON. (EPO)
---	CONDUIT ROUTED CONCEALED IN WALLS.
---	CONDUIT ROUTED EXPOSED.
---	CONDUIT ROUTED UNDERGROUND
---	CONDUIT ROUTED IN FLOOR BELOW AGAINST EXISTING STRUCTURE.
HA-1	HOMERUN TO PANEL WITH PANEL AND CIRCUIT NUMBER DESIGNATIONS. SHORT HASH MARK INDICATES HOT WIRE, LONG HASH MARK INDICATES NEUTRAL WIRE, CURVED HASH MARK INDICATES GROUND WIRE.
⊞	PARTIAL HOMERUN
⊞	INDICATES SEPERATE CONDUIT WITH GROUND WIRE.
⊞	LIGHTING & RECEPTACLE PANELBOARD. "H" DENOTES 3PH, 480/277V; "L" DENOTES 3PH, 120/208V
⊞	DISTRIBUTION PANEL
⊞	TRANSFORMER

SYMBOLS DESCRIPTION

TELEPHONE SYSTEM

⊞	OVERHEAD PAGING SYSTEM SPEAKER
AMP	OVERHEAD PAGING SYSTEM AMPLIFIER.

NURSE CALL SYSTEM

NCS	NURSE CALL MASTER STATION
NCT	NURSE CALL TERMINAL CABINET.
N _D	NURSE CALL DUTY STATION. MOUNT 5'-0" A.F.F. U.N.O..
N _E	NURSE EMERGENCY CALL STATION (CODE BLUE) WALL MOUNTED AT 5'-0" AFF U.N.O.
T	NURSE CALL EMERGENCY TOILET STATION.
N	NURSE CALL CORRIDOR DOME LIGHT
N	NURSE CALL STATION, MOUNT 5'-0" A.F.F. U.N.O

FIRE ALARM

⊞	FIRE ALARM SMOKE DETECTOR. CEILING MOUNTED.
⊞	OVERHEAD PAGING SYSTEM SPEAKER
WF	SPRINKLER SYSTEM WATER FLOW SWITCH.
VS	SPRINKLER SYSTEM VALVE SUPERVISOR SWITCH.
F	FIRE ALARM MANUAL PULL STATION. MOUNTED 48" AFF TO CENTRAL LINE OF STATION.
R	FIRE ALARM OUTPUT CONTROL RELAY.
FACP	FIRE ALARM CONTROL PANEL
V	FIRE ALARM STROBE, WALL MOUNTED 80" AFF.
FAA	FIRE ALARM REMOTE ANNUNCIATOR
AD	AUTOMATIC DAMPER.
FSD	FIRE SMOKE DAMPER
F	FIRE ALARM TELEPHONE JACK
H	SECURITY TYPE PANIC BUTTON. MOUNT 54" A.F.F..
AMP	OVERHEAD PAGING SYSTEM AMPLIFIER.

ABBREVI. DESCRIPTION

A	AMPS
ADA	AMERICANS WITH DISABILITIES ACT
ADO	AUTOMATIC DOOR OPENER
AF	ABOVE FINISHED FLOOR
AF	AMPERE FRAME
AHU	AIR HANDLING UNIT
ARCH	ARCHITECT
AT	AMPERE TRIP
ATS	AUTOMATIC TRANSFER SWITCH
BC	BARE COPPER
BRIP	BOLTER PLANT INSTRUMENTATION PANEL
BKR	BREAKER
C	CONDUIT
CB	CIRCUIT BREAKER
CCTV	CLOSED CIRCUIT TV
CKT	CIRCUIT
CLG	CEILING
DB	DIRECT BURIAL
DR	DUPLEX RECEPTACLE
E	EMERGENCY
EC	EMPTY CONDUIT
EDF	ELECTRIC DRINKING FOUNTAIN
EF	EXHAUST FAN
EG	EQUIPMENT GROUND
ELEV	ELEVATOR
ELEC	ELECTRICAL
EMT	ELECTRICAL METALLIC TUBING
EW	ELECTRICAL WATER COOLER
E	EMERGENCY
EX	EXISTING
EXP	EXPANSION JOINT
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FCU	FAN COIL UNIT
FIXT	FIXTURE
FUT	FUTURE
GEN	GENERATOR
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GND	GROUND
GTB	GROUND TERMINAL BOX
HOA	HAND OFF AUTOMATIC
HP	HORSEPOWER
HV	HIGH VOLTAGE
IG	ISOLATED GROUND
JB	JUNCTION BOX
KVA	KILOVOLT-AMPS
KW	KILOWATTS
KWH	KILOWATT-HOUR
LTG	LIGHTING
LTS	LIGHTS
LV	LOW VOLTAGE
M	METER
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MOP	MAIN DISTRIBUTION PANEL
MUG	MAIN LUGS ONLY
MECH	MECHANICAL
MH	MAN HOLE
MTD	MOUNTED
MTD HGT	MOUNTING HEIGHT
MTG	MOUNTING
N	NEW
N.C.	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANU. ASSOC.
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NF	NON-FUSED
NFSS	NON-FUSED SAFETY SWITCH
N.O.	NORMALLY OPEN
NTS	NOT TO SCALE
P	POLE
PB	PULL BOX
PH	PHASE
PLUMB	PLUMBING
PNL	PANEL
PWR	POWER
R	RELAY
RA	RETURN AIR
RE	REFERENCE, REFER
SA	SUPPLY AIR
SD	SMOKE DETECTOR
SIG	SIGNAL
SF	SQUARE FEET
SPEC	SPECIFICATION, SPECIFIED
SS	SAFETY SWITCH
SPKLR	SPRINKLER
SPKR	SPEAKER
SR	SINGLE RECEPTACLE
TV	TELEVISION
TYP	TYPICAL
UG	UNDERGROUND
UL	UNDERWRITER'S LABORATORIES, INC. UNLESS NOTED OTHERWISE
UNO	UNLESS NOTED OTHERWISE
V	VOLTAGE
VFD	VARIABLE FREQUENCY DRIVE
VP	VAPOR PROOF
WP	WEATHERPROOF
WT	WEATHER TIGHT
XFMR	TRANSFORMER

GENERAL NOTES

- G1. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR THE EXACT LOCATION OF ALL CEILING MOUNTED DEVICES. DO NOT LOCATE CEILING MOUNTED ITEMS FROM THE ELECTRICAL DRAWINGS UNLESS ITEMS ARE NOT SHOWN ON THE REFLECTED CEILING PLANS; IN SUCH CASE, COORDINATE EXACT LOCATION OF ITEM WITH ARCHITECT.
- G2. REFER TO ARCHITECTURAL INTERIOR ELEVATION DRAWINGS FOR ADDITIONAL INFORMATION OF WALL MOUNTED DEVICES.
- G3. COORDINATE EXACT LOCATION OF ALL LIGHTING FIXTURES IN MECHANICAL AND ELECTRICAL ROOMS WITH EQUIPMENT, DUCTWORK AND PIPING.
- G4. ALL LAY-IN LIGHTING FIXTURES SHALL BE CONNECTED TO A BRANCH CIRCUIT JUNCTION BOX WITH A FLEXIBLE FIXTURE TAIL. A MAXIMUM OF FOUR FIXTURE TAILS SHALL BE CONNECTED TO A SINGLE JUNCTION BOX. FIXTURE TO FIXTURE WIRING OF LAY-IN LIGHTING FIXTURES IS NOT PERMITTED.
- G5. REFER TO MASTER SPECIFICATIONS FOR ALL NEW WORK IN THIS PROJECT.
- G6. THIS CONTRACTOR SHALL PROVIDE TYPED CIRCUIT DIRECTORY SHOWING TYPE OF LOAD AND ROOM NUMBER FOR EACH PANELBOARD USED ON THIS PROJECT.
- G7. EACH BRANCH CIRCUIT HOMERUN SHALL HAVE NO MORE THAN THREE CIRCUITS. EACH BRANCH CIRCUIT HOMERUN SHALL HAVE A SEPERATE GREEN INSULATED EQUIPMENT GROUNDING CONDUCTOR.
- G8. MULTI-GANG BACKBOXES FOR DIFFERENT VOLTAGES AND TYPES OF EMERGENCY AND NORMAL BRANCH WIRING DEVICES SHALL HAVE DIVIDERS BETWEEN DEVICES.

DEMOLITION NOTES

- A. EXISTING EQUIPMENT, SUCH AS LIGHTING FIXTURES, WIRING DEVICES, CONDUITS, ETC., SHOWN ON PLANS TO BE REMOVED COMPLETELY. CUT/CAP CONDUITS AT THE AREA OF WORK PERIMETER AND REMOVE CONDUIT WITHIN THE WORK AREA. DISCONNECTING WIRING AT THE OVERCURRENT PROTECTIVE DEVICE AND REMOVE WIRING COMPLETELY FROM THE ABANDONED CONDUITS.
- B. MAINTAIN AND RESTORE, IF INTERRUPTED, ALL CONDUITS AND CONDUCTORS PASSING THROUGH RENOVATED AREAS AND SERVICING UNDISTURBED AREAS.

ELECTRICAL LOAD ANALYSIS

NORMAL POWER

LOAD	KW	AMP
LIGHTING 4,500SFx3W/SF	13	16
SUB-TOTAL CONNECTED LOAD		
	13	16
RECEPTACLES 64@180VA=11520 FIRST 10KVA AT 100% REMAINDER AT 50%(1520VA)	10	12
	2	2
SUB-TOTAL CONNECTED LOAD		
	12	14
MECHANICAL AHU-11(1@7.5HP)	9	11
SUB-TOTAL CONNECTED LOAD		
	9	11
MISCELLANEOUS	15	18
SUB-TOTAL CONNECTED LOAD		
	15	18
25% LIGHTING	3	4
25% LARGEST MOTOR	3	4
SUB-TOTAL CONNECTED LOAD		
	6	8
TOTAL CONNECTED LOAD		
	55	67
EXISTING ELECTRICAL SERVICE AT 277/480V-3PH-4W		
	83	100

ELECTRICAL LOAD ANALYSIS

EMERGENCY POWER

LOAD	KW	AMP
LIGHTING	2	2
EGRESS		
RECEPTACLES	6	7
TOTAL CONNECTED LOAD		
	8	9
EXISTING ELECTRICAL SERVICE AT 277/480V-3PH-4W		
	83	100

"ISSUED FOR BIDS" - FULLY SPRINKLERED

<p>SCHEMATIC DESIGN SUBMISSION 08/02/10</p> <p>DESIGN DEVELOPMENT SUBMISSION 09/03/10</p> <p>CONSTRUCTION DOCUMENT SUBMISSION 11/22/10</p> <p>ISSUE FOR BIDS 12/19/11</p>	<p>CONSULTANTS:</p> <p style="text-align: center;">  Fernando L. Pereira Registered Professional Engineer No. 84894 State of Texas </p>	<p>ARCHITECT/ENGINEERS:</p> <p style="text-align: center;"> WILSON ARCHITECTURAL GROUP 508 WESTHEIMER SUITE 800 HOUSTON, TEXAS 77058 TELEPHONE (713) 621-674 MEP ENGINEERS BURNS DeLATTE AND MCCOY, INC. STRUCTURAL ENGINEERS PINNACLE STRUCTURAL FIRE PROTECTION ENGINEERS PROTECTION DEVELOPMENT INC. CIVIL ENGINEERS BREWER AND ESCALANTE </p>	<p>Drawing Title</p> <p style="text-align: center;">NOTES, LEGEND, ABBREVIATIONS AND LOAD ANALYSIS</p> <p>NO SCALE</p> <p>Approved Project Director</p>	<p>Project Title</p> <p style="text-align: center;">BUILDING 11 ADDITION AND INTERIOR RENOVATIONS</p> <p>Location WACO, TEXAS</p> <p>Date 19 DEC 2011 Checked FP Drawn JP</p>	<p>Project Number 674A4-CSI-516</p> <p>Building Number 11</p> <p>Drawing Number 11</p> <p style="font-size: 24pt; font-weight: bold;">ES000</p> <p>Dwg. of</p>	<p>Office of Construction and Facilities Management</p> <p style="font-size: 12pt;">Department of Veterans Affairs</p>
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